

Appl. No. 09/646,599
Amendment dated July 13, 2004
Reply to office action mailed April 9, 2004

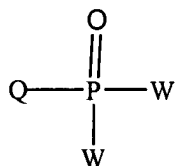
Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

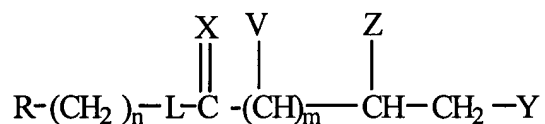
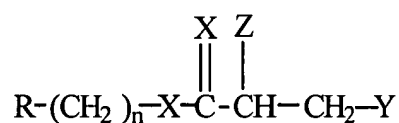
Listing of Claims:

Claims 1-4 (canceled)

Claim 5 (currently amended): A compound of the following formula



wherein each W is independently SH, OH, OCH₂CH(NH₂)CO₂H, OCHCH₃CH(NH₂)CO₂H, OPO₃H₂, OP(O)(OH)-O-PO₃H₂ or Q, wherein when one W is Q, the other W is OH, and Q is one of the following structures:



wherein

Y is O or S;

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R is unsubstituted, saturated or unsaturated, straight or branched-chain alkyl, or $((\text{CH}_2)_p\text{O})_q(\text{CH}_2)_p\text{T}$ where q is an integer from 1 to about 900 and where each p is independently an integer from 2 to about 10 and T is OH, or $\text{O}(\text{CH}_2)_b\text{CH}_3$ where b is an integer from 0 to about 10;

V is independently OH, SH, H, NH_2 , halogen, OPO_3H_2 , or OSO_3H ;

n is an integer from ≥ 0 to about 10;

m is an integer from 0 to about 10;

Z is OH, SH, halogen, H, $\text{O}(\text{CH}_2)_b\text{CH}_3$ where b=0 to about 2, or SO_3H ;

L is independently O or S; and,

X is independently O or S.

Claim 6 (currently amended): A compound of Claim 5, selected from the group consisting of reverse ester-LPA, and reverse thioester-LPA ~~and a salt of either compound.~~

Claim 7 (previously presented): A composition comprising 3-oleyl-1-thiophosphoryl-2-O-methyl-*rac*-glycerate, or a salt thereof.

Claim 8 (currently amended): A method of inhibiting ~~treating~~ apoptosis, or preserving or restoring function in a cell, tissue or organ comprising administering *in vivo* a therapeutically effective amount of a compound of claim 5.

Claim 9-27 (cancelled)

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Claim 28 (currently amended): A composition comprising a compound of claim 5, and at least one ~~further comprising~~ pharmaceutically acceptable excipient ~~excipients~~.

Claims 29-34 (cancelled)

Claim 35 (currently amended): A method of making a ~~the composition of Claim 9~~, comprising the steps of:

- a) forming a lipid dispersion comprising a compound of Claim 5 ~~LPA~~;
- b) providing at least one ~~of said~~ potentiating component ~~components~~; and
- c) combining the products of steps a and b to form a composition comprising a compound of Claim 5 and a potentiating component.

Claim 36 (currently amended): The method according to claim 35, wherein the lipid dispersion is formed by the steps of:

- a) dissolving a compound of Claim 5 ~~LPA~~ and any other lipids in organic solvent;
- b) removing the solvent to form dried lipid; and
- c) dispersing the dried lipid into aqueous media by the steps of:
 - i) forming an even lipid dispersion; and
 - ii) forming an even dispersion of lipid membrane structures.

Claim 37 (previously presented): The method according to claim 35, further comprising the step of d) sterilizing the composition.

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Claims 38-42 (cancelled)

Claim 43 (original): The method according to claim 8, comprising administering said composition to a patient suffering from a condition related to apoptosis, ischemia, traumatic injury or reperfusion damage.

Claim 44 (original): The method according to claim 8, comprising administering said composition to a patient suffering from gastrointestinal perturbation.

Claim 45 (original): The method according to claim 44, wherein the gastrointestinal perturbation is caused by a stimulus selected from the group consisting of viruses, chemotherapeutic agents, radiation, infectious diseases, inflammatory bowel disease, and diarrhea-causing organisms.

Claim 46 (original): The method according to claim 45, wherein the virus is human immunodeficiency virus.

Claim 47 (original): The method according to claim 8, wherein the method diminishes apoptosis-related problems associated with immunosuppressing viruses, chemotherapeutic agents, or radiation and immunosuppressive drugs.

Claim 48 (original): The method according to claim 43, wherein the reperfusion damage is associated with coronary artery obstruction; stroke; cerebral infarction; spinal/head trauma and

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concomitant severe paralysis; frostbite; coronary angioplasty; blood vessel attachment; limb attachment; organ attachment; and kidney reperfusion.

Claim 49 (currently amended): A method of culturing cells comprising treating cells with an amount of the compound according to claim [[1]] 5 effective to prevent apoptosis or preserve the cells.

Claim 50 (original): The method according to claim 49, wherein the cells are part of a tissue or organ.

Claim 51 (previously presented): A method of preserving an organ comprising adding an effective amount of the compound according to claim 5 to the solution with which the organ is treated.

Claim 52 (previously presented): A method of organ preservation comprising administering to a donor organ at least one intravenous bolus of an effective amount of the compound according to claim 5.

Claim 53 (original): The method according to claim 8, wherein the patient is undergoing a condition selected from the group consisting of cardioplegia, congestive heart failure, angioplasty, and a valve operation.

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Claim 54 (previously presented): A method of treating dermatologic conditions, comprising topically administering a therapeutically effective amount of a compound according to claim 5 to a patient in need of such treatment.

Claim 55 (original): The method according to claim 54, wherein the dermatological condition is wrinkling, or hair loss.

Claim 56 (previously presented): A method of treating wounds comprising administering an effective amount of the compound according to claim 5.

Claim 57 (previously presented): The method according to claim 56, wherein the wounds are burn wounds.